

## CLAIMS

1. Cathode unit for installation in a fluorescent tube body (3) belonging to a fluorescent tube (1), which cathode unit (5) comprises a cathode screen (15a, 15, 15'-15"""), which partially surrounds an electrode (9) which is electrically insulated from the said cathode screen (15); a power supply device (11) arranged to make an electrical connection between the said electrode (9) and a contact (13); the said cathode screen (15) comprising a first end (19) facing towards the discharge, which first end (19) comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised in that the first end (19) of the cathode screen (15a, 15, 15'-15""") is designed with a rounded-off part (25) in order to facilitate the insertion of the cathode unit (5) in the said fluorescent tube body (3).
- 15 2. Cathode unit according to Claim 1, characterised in that the said cathode screen (15a) is designed with at least one side wall (2) essentially incident to a centre line (CL).
- 20 3. Cathode unit according to Claim 1 or 2, characterised in that the said cathode screen (15a, 15, 15'-15""") is manufactured in one piece.
- 25 4. Cathode unit according to Claims 1 to 3, characterised in that the said cathode screen (15a, 15, 15'-15""") is manufactured of metal.
- 30 5. Cathode unit according to any one of the preceding claims, characterised in that the said cathode screen (15a, 15, 15'-15""") is designed with at least one slot (31) within the area for the said power supply device (11).
- 35 6. Cathode unit according to any one of the preceding claims, characterised in that the said cathode screen (15a, 15, 15'-15""") is provided on the outside with a heat-insulating material (37).
7. Cathode unit according to any one of the preceding claims, characterised in that the outer side of the said cathode screen (15a, 15, 15'-15"""), viewed in the longitudinal direction of the cathode screen (15), follows a straight line L essentially parallel to the longitudinal axis of the said fluorescent tube body.

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8. Cathode unit according to any one of the preceding claims, characterised in that the second end (39) of the said cathode screen (15a, 15, 15'-15'') is completely open.

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9. Cathode unit according to any one of the preceding claims, characterised in that the inner side (33) of the said cathode screen (15a, 15, 15'-15'') is coated with an electrically-insulating material.

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10. Method for manufacturing a fluorescent tube (1) comprising a fluorescent tube body (3), a cathode unit (5), which cathode unit (5) comprises a cathode screen (15a, 15, 15'-15'') which partially surrounds an electrode (9) provided with emitter material (23), which electrode (9) is electrically insulated from the said cathode screen (15), a power supply device (11) attached to a foot (7), which power supply device (11) is arranged to make an electrical connection between the said electrode (9) and a contact (13), the said cathode screen (15) comprising a first end (19) facing towards the discharge, which first end comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised by the

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stages:

- pressing the said cathode screen in one piece with the first end (19) being shaped with a rounded-off part (25);
- welding the cathode screen (15a, 15, 15'-15'') to a fixing device (17) that is attached to the said foot (7);
- inserting the said cathode unit (5) in the said fluorescent tube body (3);
- removal of decomposition products of the emitter material (23) by pumping; and
- sealing the fluorescent tube (1) when all the decomposition products have been removed from the fluorescent tube (1).

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11. Fluorescent tube comprising at least one cathode unit (5) according to any one of the preceding claims.